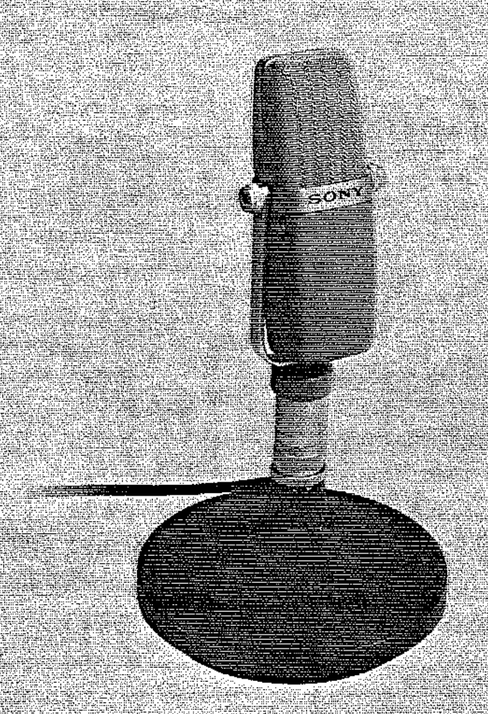
C-38B

Serial No. 5481 and later



FET CONDENSER MICROPHONE

SPECIFICATIONS

Battery: 9 V dc, battery size "006P" or equiv. (IEC designation 6F22)

Power Supply: Standard operating voltage: 9 V
Minimum operating voltage: approx. 7.5 V
Current drain: less than 2 mA (with battery)
less than 5 mA (with external power supply)
Continuous battery duration: more than 200 hours with a 006P dry battery
Accepts external power supply of 24 – 54 V dc

Directivity: Uni-directional and omni-directional

Output Impedance: 250 ohms ± 20% (balanced)

Output Level:

Position of the Pad Switch	Output impedance	Effective output level*[1]	Open circuit output level
[0]	250 ohms	–47.8 dBm	0.4 mV/μbar
[–8 dB]	250 ohms	–55.8 dBm	0.16 mV/μbar

Deviation ± 2 dB
*[1] 0 dBm = 1 mW/10 μbar, 1,000 Hz

Frequency Response: 30 Hz – 16,000 Hz

Noise Level: S/N ratio: better than 50 dB (1,000 Hz, 1 μbar)
Inherent noise: less than 24 dB SPL ($0 \text{ dB} = 2 \times 10^{-4}$ μbar)
Wind noise*[2]: less than 44 dB SPL
Induction noise of external magnetic field*[3]: 5 dB SPL/m gauss

*[2] Wind noise is the value measured by applying a wind velocity of 6.6 ft./s. from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level. ($0 \text{ dB} = 2 \times 10^{-4}$ μbar)

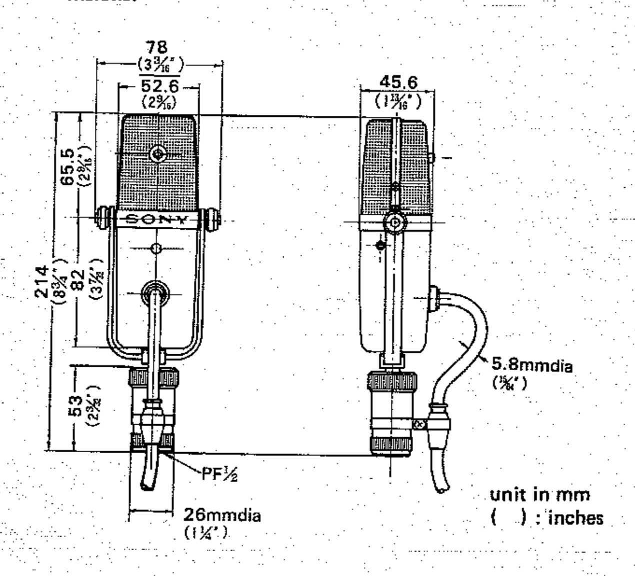
*[3] The external magnetic field induction noise is measured with the microphone placed in the alternating magnetic field of 50 Hz, 1 milligauss. The maximum noise value is taken and converted to the equivalent input sound level. ($0 \text{ dB} = 2 \times 10^{-4}$ μbar)

— Continued on next page —

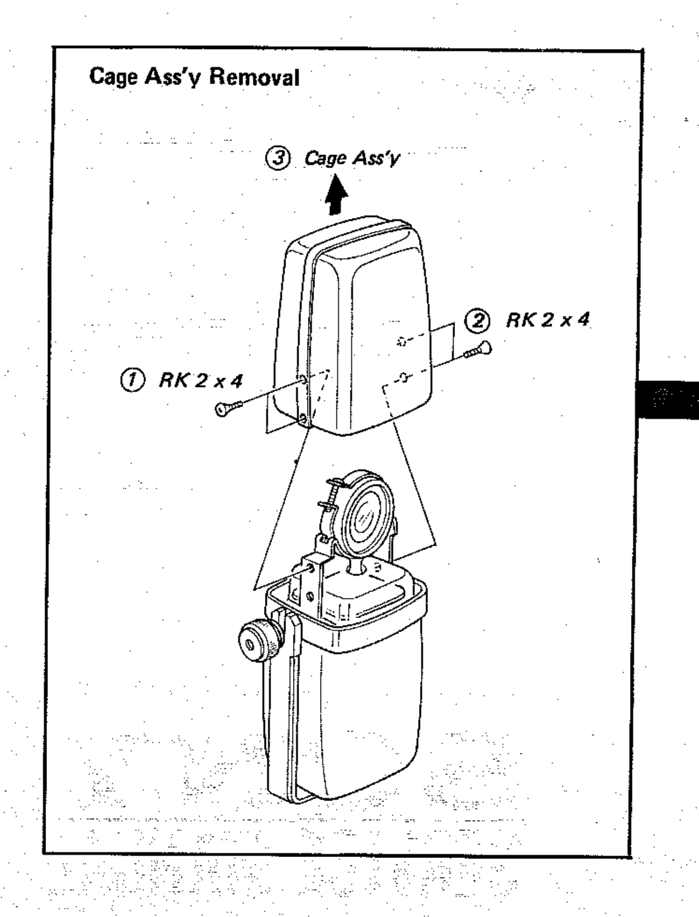


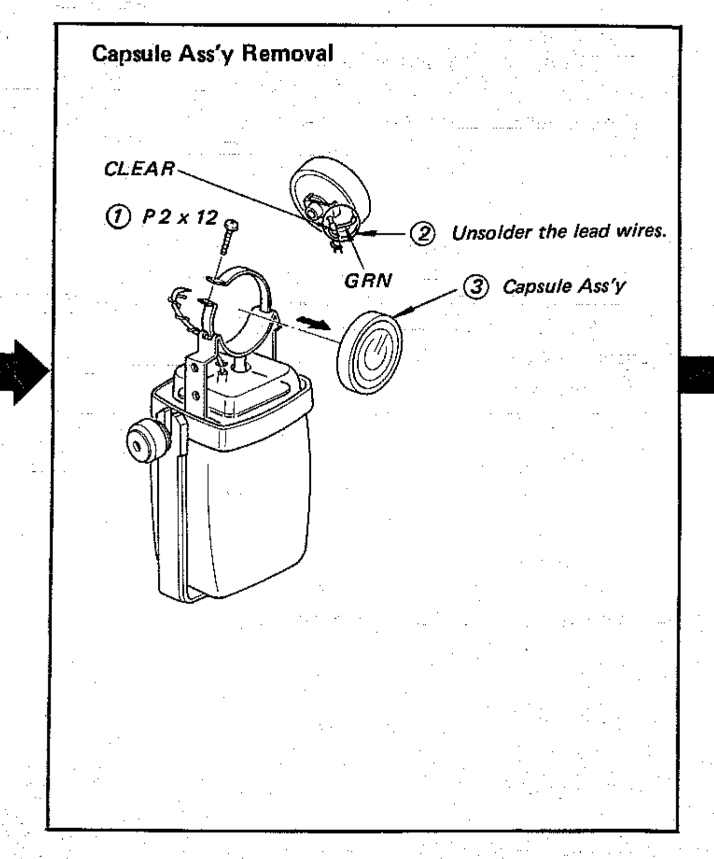
Maximum Sound Pressure Input Level*4:	140 dB SPL: *4 This is the maximum input level which produces less than 1 % wave distortion at the output with 1,000 Hz, and less than 1 % intermodulation distortion at the output signal with 70 Hz – 7 kHz.
Dynamic Range:	Approx. 116 dB
Acceptable Preservation Temperature:	–4° to 140°F (–20° to 60°C)
Proper Operating Temperature:	32° to 140°F (0° to 60°C)
Microphone Cable:	Approx. 5.8 mm (15/64 inches) dia. 4-conductor shielded cable with a CANNON XLR-3-12C plug, 6 m (20 feet) long
Mounting Thread:	PF½
Weight:	650 g (1 lb 7 oz) without cable

Dimensions:

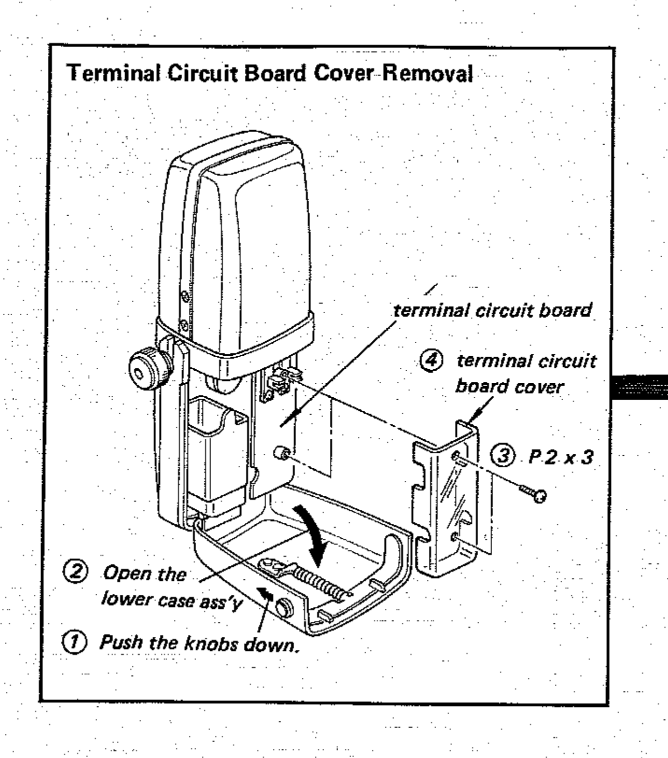


SECTION 1
DISASSEMBLY

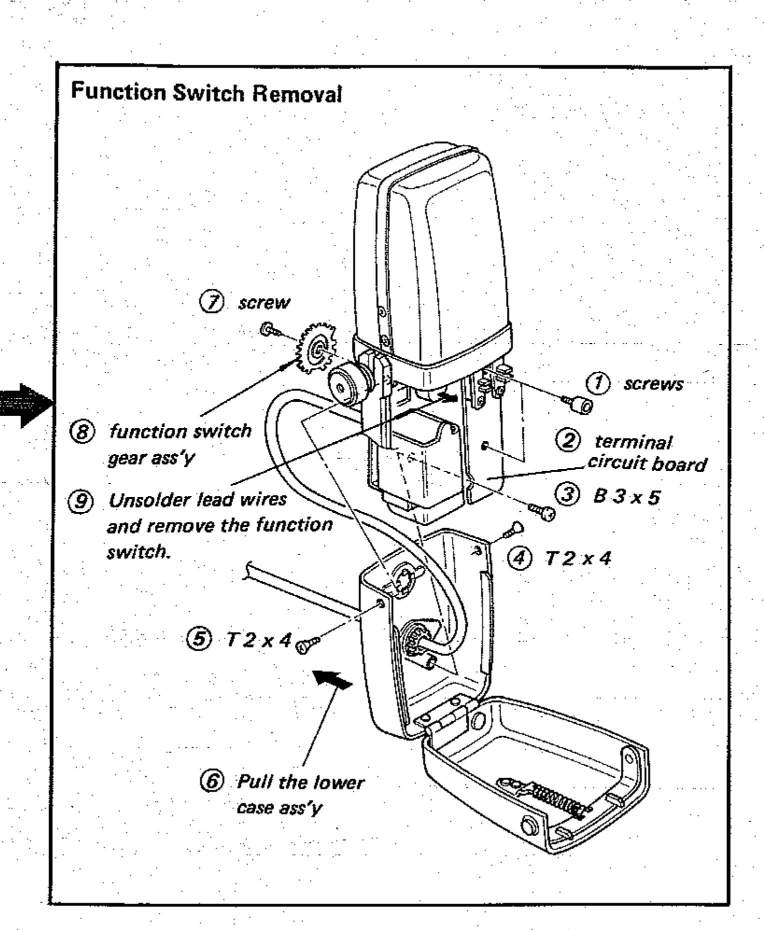




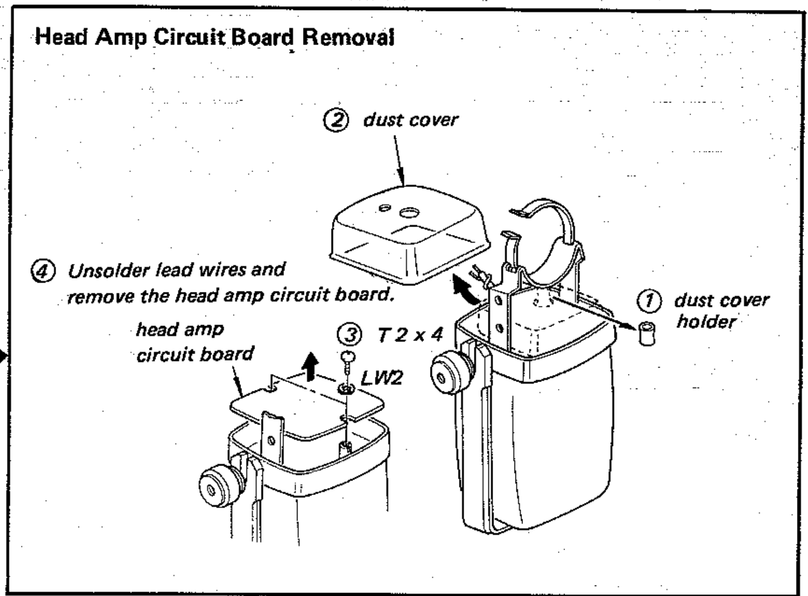
Terminal Circuit Board Cover Removal



Function Switch Removal



Head Amp Circuit Board Removal



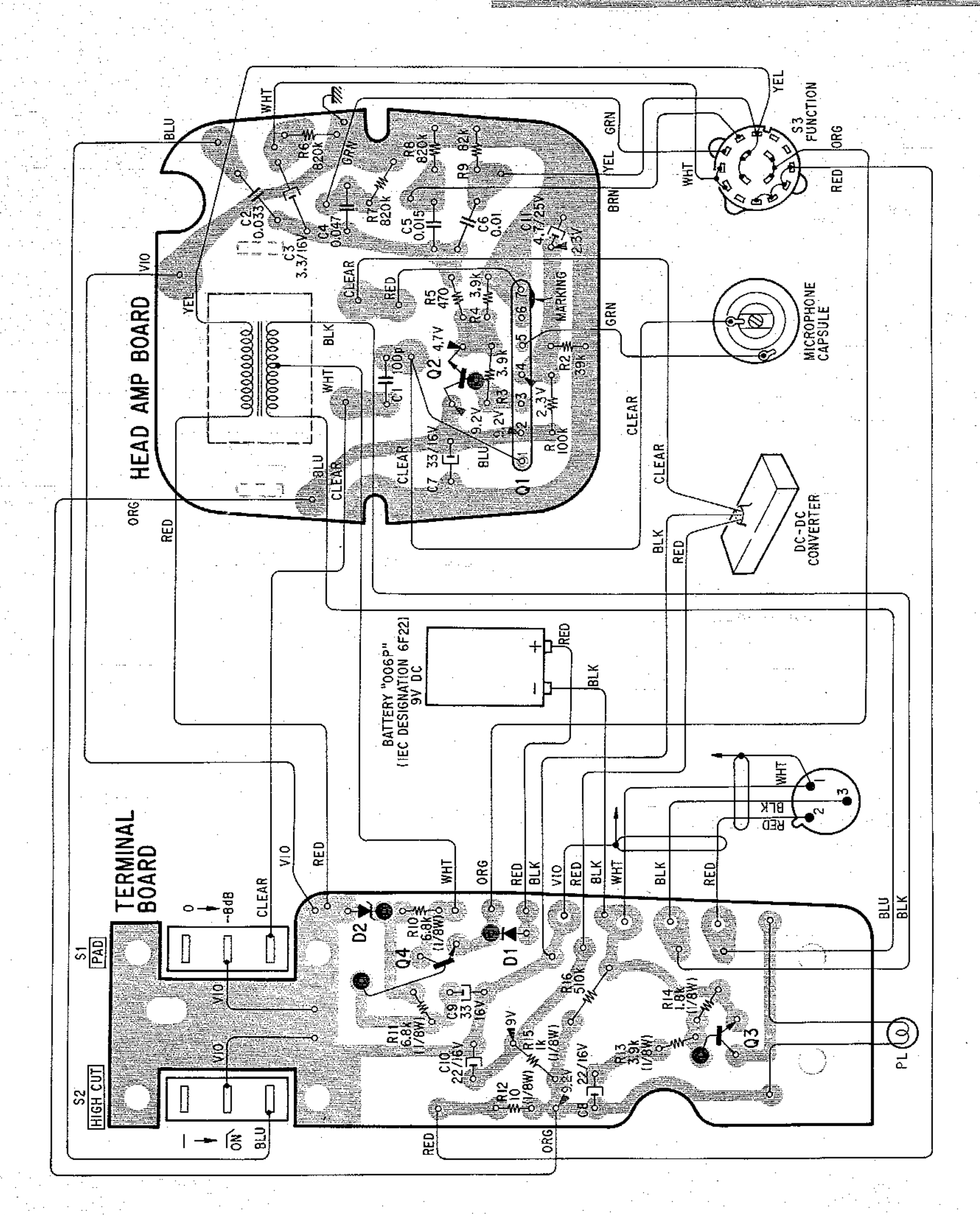
SECTION 2
DIAGRAMS

2-1. MOUNTING DIAGRAM

— Conductor Side —

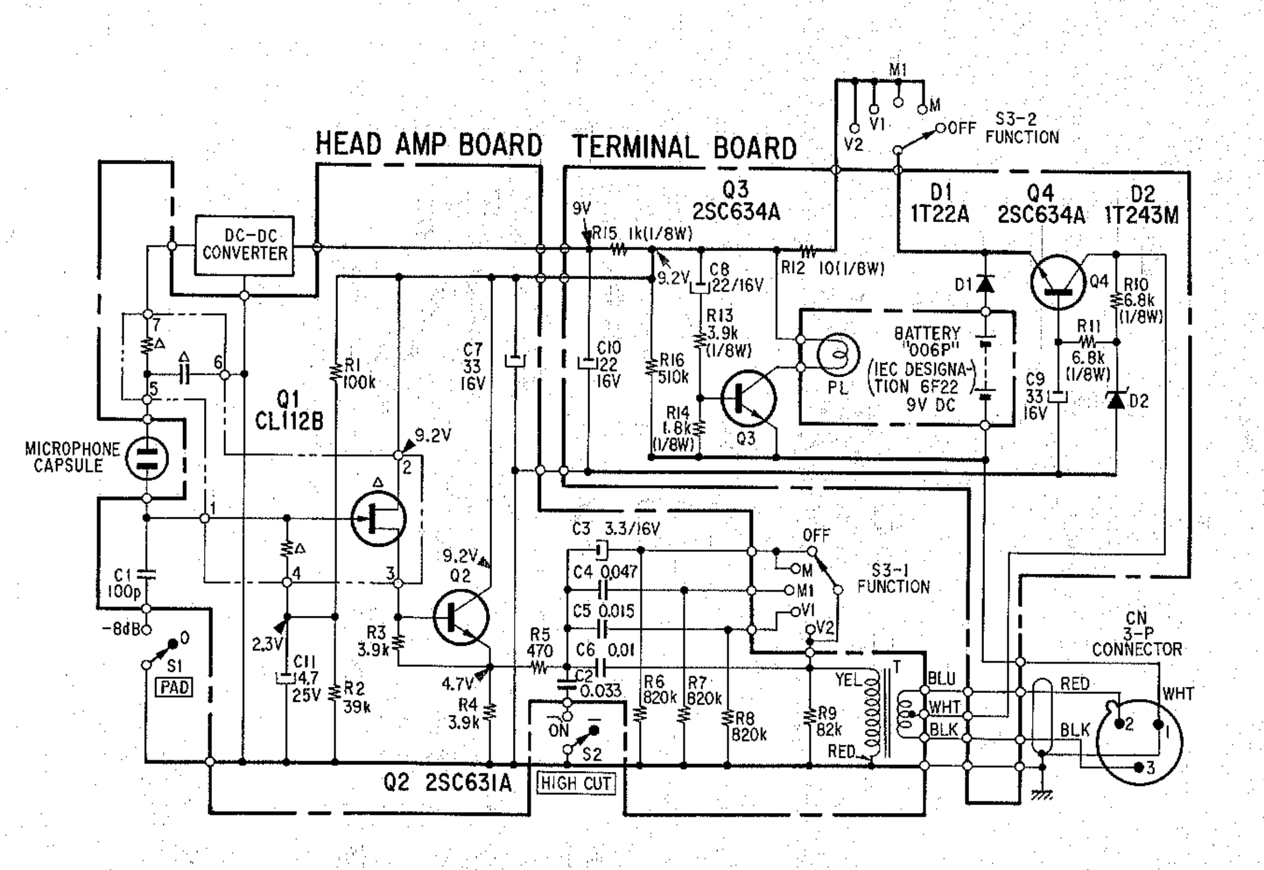
CAUTION

The head amp board has been carefully adjusted at the factory. If some trouble occurs on it, replace the head amp board as a part. The parts on the head amp board are not individually available.



Note:
● ▒▒▒ : B+ pattern

2-2. SCHEMATIC DIAGRAM



Q3, 4: 2SC634A

D1: 1T22A

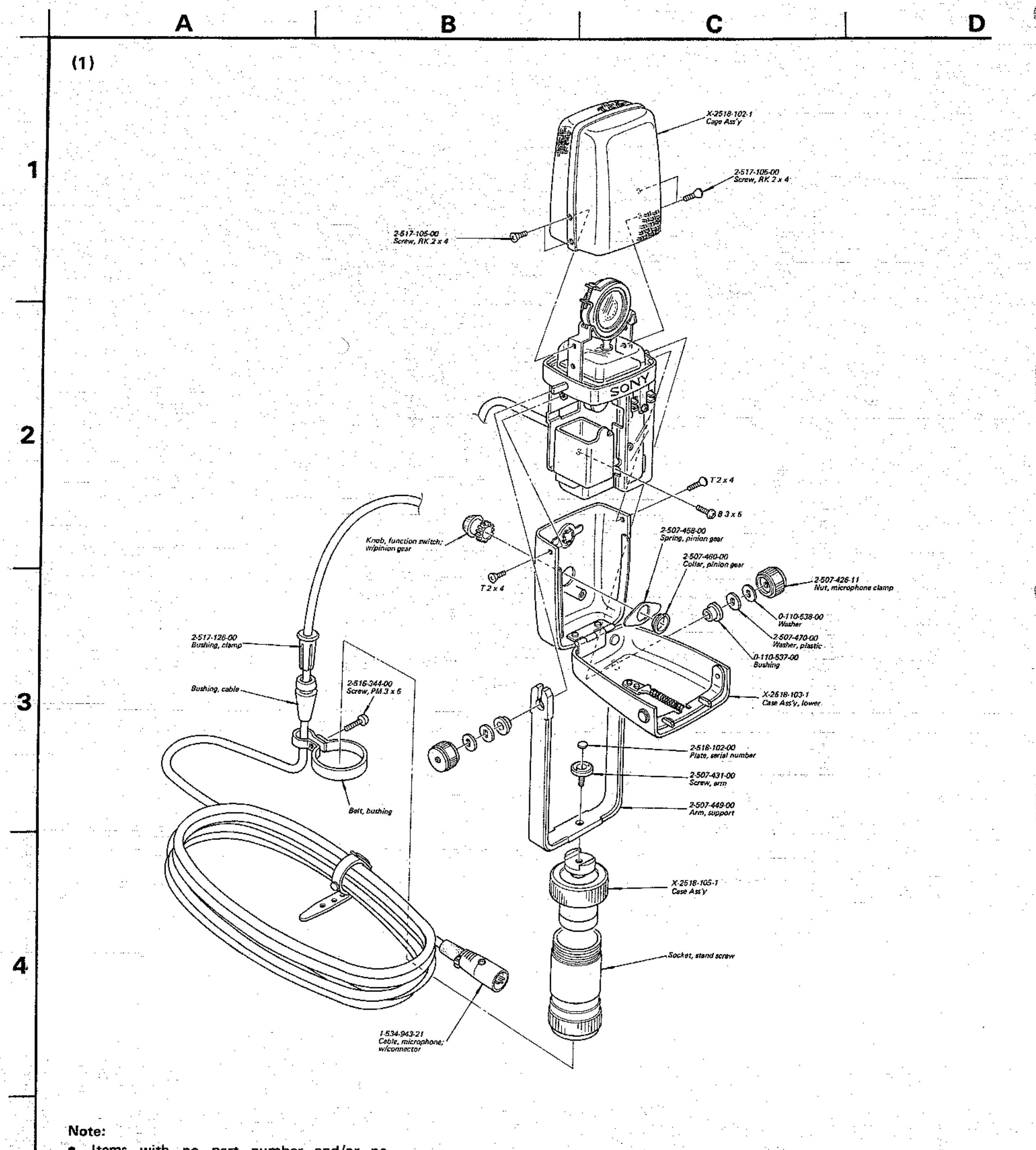
D2: 1T243M

Note:

- All capacitors are in μF unless otherwise noted. pF = μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- △ : internal component.
- ▬ : B+ bus.
- ▭ : panel designation.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltage variations may be noted due to normal production tolerances.
- Switch

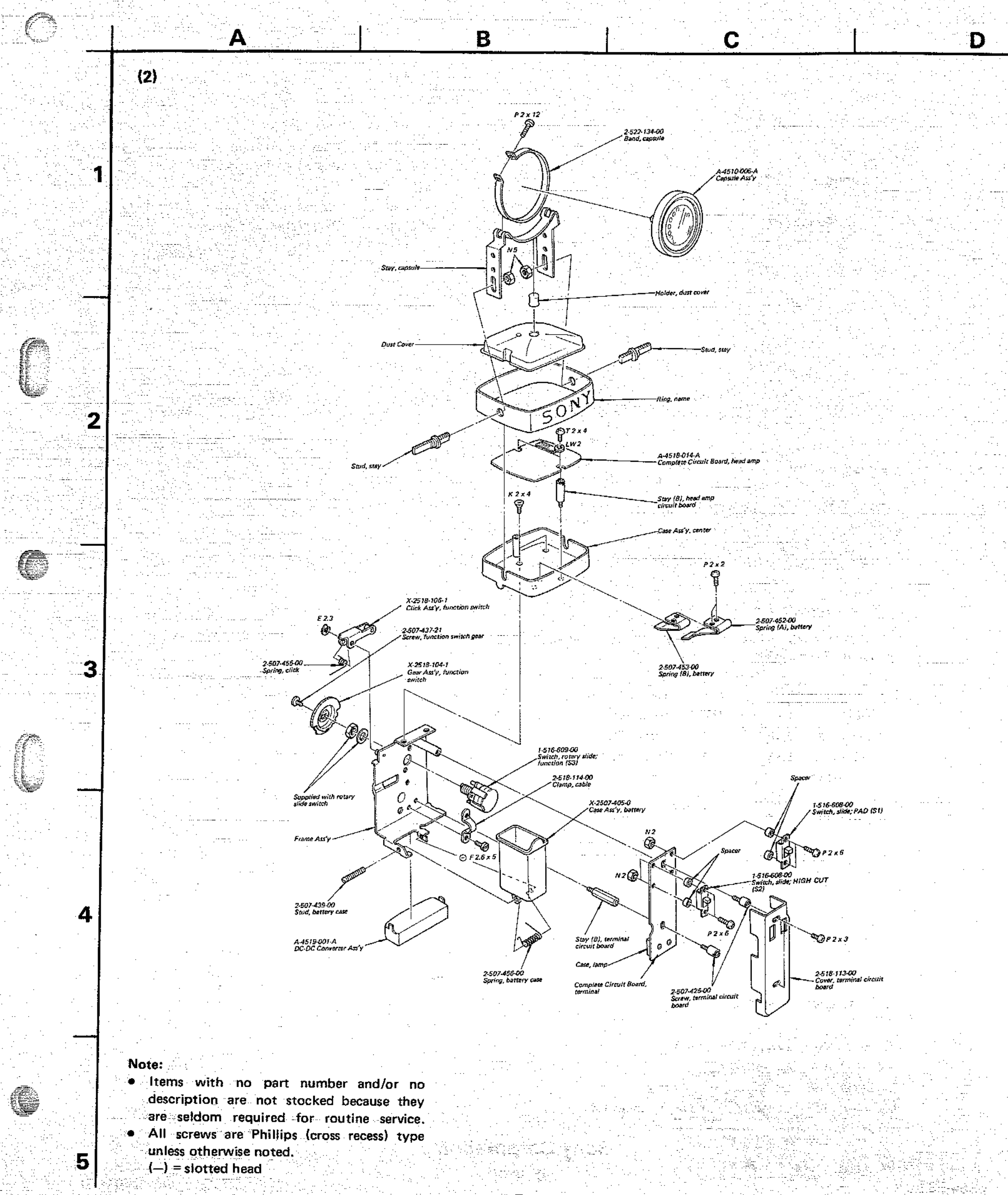
Ref. No.	Switch	Position
S1	PAD	0
S2	HIGH CUT	OFF
S3	FUNCTION	OFF

SECTION 3
EXPLODED VIEWS



Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

5



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

SECTION 4
ELECTRICAL PARTS LIST

Ref. No.	*Part No.*	*Description*		

COMPLETE CIRCUIT BOARD

	A-4518-014-A	Head Amp		

SEMICONDUCTORS

Transistors

Q3, 4		2SC634A		

Diodes

D1		1T22A		
D2		1T243M		

CAPACITORS

All capacitors are in μF and electrolytic.

C8	1-121-990-11	22	16V	
C9	1-121-403-11	33	16V	
C10	1-121-990-11	22	16V	

RESISTORS

All resistors are in ohm. kΩ = 1000Ω

R10, 11	1-202-032-11	6.8k	1/8W	composition
R12	1-201-856-11	10	1/8W	composition
R13	1-202-018-11	3.9k	1/8W	composition
R14	1-201-650-11	1.8k	1/8W	composition
R15	1-201-634-11	1k	1/8W	composition
R16	1-202-448-11	510k	1/4W	composition

SWITCHES

S1, 2	1-516-608-00	Slide, PAD, HIGH CUT
S3	1-516-609-00	Rotary Slide, function

MISCELLANEOUS

PL	1-518-268-00	Lamp, 4.5V, 40mA
	A-4510-006-A	Capsule Ass'y
	A-4519-001-A	DC-DC Converter Ass'y
	1-534-943-21	Cable, microphone; w/connector

ACCESSORIES & PACKING MATERIALS

Part No.	*Description*
0-110-572-00	Screwdriver
2-052-522-00	Adaptor, microphone stand
2-522-235-00	Bag, plastic; carrying case
2-522-237-11	Carton
2-599-080-21	Manual, instruction
3-701-628-00	Bag, plastic; microphone

Sony Corporation

9-954-522-01

7C0447-1
Printed in Japan